IN THE CLAIMS:

Please enter the following clean copy of the amended claims. A complete listing of all the claims in the application follows herewith:

Claims 1-4 (Cancelled)

- (Previously amended) The pullulanase of Claim 6, wherein the pullulanase is obtained from a Bacillus deramification having the designation T89.117D in the LMG culture collection.
- 6. (Previously amended) A truncated *Bacillus* pullulanase comprising a deletion of about 100 amino acids from the amino terminus of a pullulanase obtainable from *Bacillus* deramificans, wherein said truncated pullulanase comprises a conserved Y region, and is capable of catalyzing the hydrolysis of an alpha-1, 6-glucosidic bond.
- 7. (Previously amended) A truncated *Bacillus* pullulanase comprising a deletion of about 200 amino acids from the amino terminus of a pullulanase obtainable from *Bacillus deramificans*, wherein said truncated pullulanase comprises a conserved Y region, and is capable of catalyzing the hydrolysis of an alpha-1,6-glucosidic bond.
- 8. (Previously amended) A truncated *Bacillus* pullulanase comprising a deletion of about 300 amino acids from the amino terminus of a pullulanase obtainable from *Bacillus* deramificans, wherein said truncated pullulanase comprises a conserved Y region, and is capable of catalyzing the hydrolysis of an alpha-1,6-glucosidic bond.
- 9. (Previously Amended) A truncated *Bacillus* pullulanase comprising a deletion that is 98 amino acids from the amino terminus of *Bacillus deramificans* pullulanase, wherein said truncated pullulanase is capable of catalyzing the hydrolysis of an alpha-1, 6-glucosidic bond.
- 10. (Previously Amended) A truncated *Bacillus* pullulanase comprising a deletion that is 102 amino acids from the amino terminus of *B. deramificans* pullulanase, wherein said truncated pullulanase is capable of catalyzing the hydrolysis of an alpha-1, 6-glucosidic bond.

11. (Cancelled)

12. (Previously amended) A modified *Bacillus* pullulanase which is capable of hydrolysis of an alpha-1,6-glucosidic bond, wherein the modification is an addition of at least one amino acid to the amino terminus of a mature pullulanase amino acid sequence obtainable from a *Bacillus deramificans*, wherein the additional amino acid at the amino terminus is an alanine.

13. (Cancelled)

- 14. (Previously Amended) A truncated *Bacillus* pullulanase produced by a method comprising the steps of
- a) obtaining a recombinant host cell comprising nucleic acid encoding a mature pullulanase said nucleic acid having at least 90 % identity to the polynucleotide sequence as shown in SEQ ID NO:1.
- b) culturing said host cell under conditions suitable for the production of a truncated pullulanase, and
- c) recovering the truncated pullulanase wherein the truncated *Bacillus* pullulanase comprises a deletion of about 100 amino acids from the amino terminus of a *Bacillus* deramificans pullulanase, wherein said truncated pullulanase comprises a conserved Y region, and is capable of catalyzing the hydrolysis of an alpha-1,6-glucosidic bond.
- 15. (Previously Amended) The pullulanase of Claim 14 wherein said host cell is B. licheniformis which comprises a first gene encoding Carlsberg protease and a second gene encoding endo Glu C protease, the first and/or second gene which codes for the protease(s) having been altered such that the protease activity is essentially eliminated.

Claims 16 - 26 (Cancelled)

27. (Previously amended) An enzymatic composition comprising a truncated *Bacillus* deramificans pullulanase wherein said truncated pullulanase is selected from the group of pullulanases consisting of

- a) a deletion of up to about 100 amino acids from the amino terminus of a *Bacillus* deramificans pullulanase.
- b) a deletion of up to about 200 amino acids from the amino terminus of a *Bacillus* deramificans pullulanase, and
- c) a deletion of up to about 300 amino acids from the amino terminus of a *Bacillus* deramificans pullulanase,

wherein said truncated pullulanase of a), b) or c) comprises a conserved Y position and is capable of catalyzing the hydrolysis of an alpha-1,6-glucosidic bond.

- 28. (Currently Amended) The enzymatic composition of Claim 27 wherein the <u>truncated</u> modified pullulanase has a deletion of amino acids from the amino terminus of up to about 100 amino acids.
- 29. (Previously Amended) The enzymatic composition of Claim 27 wherein the truncated modified pullulanase has a deletion of amino acids from the amino terminus of up to about 200 amino acids.
- 30. (Previously Amended) The enzymatic composition of Claim 27 wherein the <u>truncated</u> medified pullulanase has a deletion of amino acids from the amino terminus of up to about 300 amino acids.
- 31. (Previously Amended) An enzymatic composition comprising the pullulanase of Claim 9, wherein the pullulanase has the amino acid sequence as shown in SEQ ID NO:2 beginning at amino acid residue 99, a glutamic acid.
- 32. (Previously Amended) An enzymatic composition comprising the pullulanase of Claim 10, wherein the pullulanase has the amino acid sequence as shown in SEQ ID NO:2 beginning at amino acid residue 103, a glutamic acid.
- 33. (Original) The composition of Claim 27 further comprising an enzyme selected from the group consisting of glucoamylase, alpha-amylase, beta-amylase, alpha-glucosidase, isoamylase, cyclomaltodextrin, glucotransferase, beta-glucanase, glucose isomerase, saccharifying enzymes, and/or enzymes which cleave glucosidic bonds.

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- 34. (Original) The composition of Claim 27 further comprising a glucoamylase.
- 35. (Original) The composition of Claim 34 wherein the glucoamylase is obtainable from an *Aspergillus* strain.
- 36. (Original) The composition of Claim 35 wherein the Aspergillus strain includes Aspergillus niger, Aspergillus awamori and Aspergillus foetidus.
 - 37. (Original) The composition of Claim 27 wherein said composition is in a solid form.
 - 38. (Original) The composition of Claim 27 wherein said composition is in a liquid form.
- 39. (Original) The composition of Claim 27 comprising at least 60% modified pullulanase.
- 40. (Original) The composition of Claim 27 comprising at least 80% modified pullulanase.

Claims 41 to 51 (Cancelled)

- 52. (Previously Added) The truncated *Bacillus* pullulanase of claim 6, wherein said deletion is from a pullulanase having the sequence shown in SEQ ID NO: 2.
- 53. (Previously Added) The truncated *Bacillus* pullulanase of claim 7, wherein said deletion is from a pullulanase having the sequence shown in SEQ ID NO: 2.
- 54. (Previously Added) The truncated *Bacillus* pullulanase of claim 8, wherein said deletion is from a pullulanase having the sequence shown in SEQ ID NO: 2.
- 55. (Previously Amended) The enzymatic composition of claim 27 wherein said deletion is from a pullulanase having the sequence shown in SEQ ID NO: 2.

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- 56. (Currently Amended) The truncated *Bacillus* <u>pullulanase</u> produced according to the method of claim 14, wherein the nucleic acid sequence encoding the mature pullulanase is SEQ ID NO: 1.
- 57. (Currently Amended) The truncated *Bacillus* <u>pullulanase</u> produced according to the method of claim 14, wherein the mature pullulanase has the sequence shown in SEQ ID NO: 2.
- 58. (Previously added) The truncated *Bacillus* pullulanase of claim 9, wherein the pullulanase is obtained from a *Bacillus deramificans* having the designation T89.117D in the LMG culture collection.
- 59. (Previously added) The truncated *Bacillus* pullulanase of claim 10, wherein the pullulanase is obtained from a *Bacillus deramificans* having the designation T89.117D in the LMG culture collection.
- 60. (Previously added) The truncated *Bacillus* pullulanase of claim 6, further comprising a conserved VWAP region.
- 61. (Previously added) The truncated *Becillus* pullulanase of claim 7, further comprising a conserved VWAP region.
- 62. (Previously added) The truncated *Bacillus* pullulanase of claim 8, further comprising a conserved VWAP region.
- 63. (Previously added) The truncated Bacillus pullulanase of claim 14, further comprising a conserved VWAP region.
- 64. (Previously added) The truncated *Bacillus* pullulanase of claim 27, further comprising a conserved VWAP region.
- 65. (Previously Added) The composition of Claim 31 further comprising an enzyme selected from the group consisting of glucoamylase, alpha-amylase, beta-amylase, alpha-

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glucosidase, isoamylase, cyclomaltodextrin, glucotransferase, beta-glucanase, glucose isomerase, saccharifying enzymes, and/or enzymes which cleave glucosidic bonds.

66. (Previously Added) The composition of Claim 32 further comprising an enzyme selected from the group consisting of glucoamylase, alpha-amylase, beta-amylase, alpha-glucosidase, isoamylase, cyclomaltodextrin, glucotransferase, beta-glucanase, glucose isomerase, saccharifying enzymes, and/or enzymes which cleave glucosidic bonds.